# TRIXIS ANOMALA (ASTERACEAE, MUTISEAE), A NEW SPECIES FROM CHIAPAS, MÉXICO

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## ABSTRACT

Trixis anomala B. Turner, a new species from montane cloud forests of central Chiapas, México, is described and illustrated. It differs from all other North American species in possessing an anomalous involucre that is turbinate or subturbinate with 3-4 series of graduate involucral bracts, the inner of which is not clearly uniseriate.

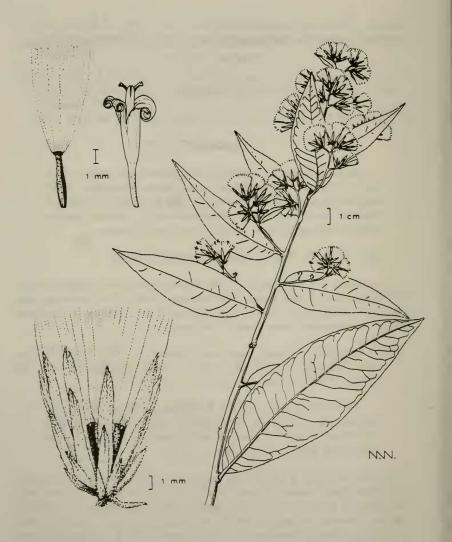
KEY WORDS: Trixis, Mutiseae, Asteraceae, México.

Preparation of a treatment of *Trixis* for the Asteraceae of México (Turner & Nesom, in prep.) has revealed the following novelty. The specimens upon which the description is based were apparently not available to Anderson (1972) in her excellent monograph of the genus.

Trixis anomala B. Turner, spec. nov., Figure 1. TYPE: MÉXICO. Chiapas: Cascada, near Siltepec, 1600 m, 1 Mar 1945, Eizi Matuda 5184 (HOLOTYPE: LL!; Isotype: LL!).

Trixis silvaticae B.L. Robins. & Greenm. similis sed differt caulibus sine alis, involucro subturbinato 3-4 seriato bracteis gradatis abbreviatis, bracteis accessoriis multo redactis vel absentibus, et receptaculo glabro vel fere glabro.

Shrubs to about 3 m high. Stems terete, not winged, moderately to densely strigopuberulous. Leaves alternate, mostly 10-19 cm long, 3-5 cm wide; petioles mostly 5-10 mm long; blades relatively thin, ovate elliptical to elliptical obovate, widest at or near the middle, moderately white puberulous beneath, the margins minutely serrulate, the apices acute. Heads 8 to numerous, borne in an erect or ascending terminal capitulescence, the ultimate peduncles mostly 1-5 mm long. Involucres turbinate, 10-12 mm high, the bracts 3-4 seriate, graduate, the innermost not clearly in a single series. Accessory bracts 1-4, lanceolate, 1-3 mm long, grading into the involucral bracts proper. Receptacle



plane, ca. 1.5 mm across, epaleate, glabrous or nearly so (perhaps a smattering of scattered hairs). Florets 11-12 per head, the corollas seemingly yellow, glabrous, the peripheral florets with corolla tubes 5-6 mm long, the outer lips ca. 3 mm long, revolute at the apices. Achenes fusiform, ca. 6 mm long, gradually tapered from about the middle, moderately pubescent with both glandular and hispid hairs, the pappus of numerous tawny white bristles, 8-10 mm long.

ADDITIONAL SPECIMEN EXAMINED: MÉXICO. Chiapas: Mpio. Cintalapa, SE of Cerro Baul on the border with Oaxaca, 16 km NW of Rizo de Oro (a logging road to Colonia Figaroa), 1600 m, 21 Apr 1972, D.E. Breedlove 24758 (TEX).

The present species, because of its wingless stems, small receptacles and peripheral florets with small revolute outer corolla tips will key with difficulty to Trixis parviflora in Anderson's 1972 treatment of the genus. It differs markedly from that species, and all North American species, in possessing an involucre of 3-4 series of bracts, these markedly graduate (Figure 1, lower left), the inner series not clearly uniseriate (hence the specific name). Accessory bracts are much reduced and grade into the involucral bracts, the involucre as a whole much resembling that of the genus Acourtia. In all other characters, however, it is clearly a Trixis. Indeed, I originally identified the holotype as T. nelsonii or possible T. silvatica, the species to which it appears most closely aligned, having the general habit of these taxa, similar florets, but lacking the winged stems and markedly pubescent receptacles. And, of course, the involucre of both T. nelsonii and T. silvatica are markedly different in possessing nongraduate involucres with well developed subtending accessory bracts. Trixis anomala has about the same range as T. silvatica and T. nelsonii, all three confined to central Chiapas, but all markedly different among themselves. While the involucre is anomalous among the North American species, some of the species from South America have involucres which approach T. anomala, and the latter may relate to groups from that area.

## ACKNOWLEDGMENTS

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